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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,242	12/28/2001	David Thomas	VIGN1340	8530

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EXAMINER	
WONG, LESLIE	
ART UNIT	**PAPER NUMBER**
2167	

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/033,242	THOMAS ET AL.	
	Examiner	Art Unit	
	Leslie Wong	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 June 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *46-81* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *46-69 and 79-81* is/are allowed.

6)☒ Claim(s) *70-78* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *03/07/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Receipt of Applicant's Amendment, filed 09 June 2005, is acknowledged.

Information Disclosure Statement

2. Applicants' Information Disclosure Statement, filed 07 March 2005, has been received, entered into the record, and considered. See attached form PTO-1449.

Allowable Subject Matter

3. Claims 46-69 and 79-81 are allowed.

The following is an examiner's statement of reasons for allowance:

Prior art of record fails to teach a combination of elements including notify the operating system to open the cached file using a locally running application associated with the file type for the cached file; determining if the cached file at the client computer has been modified by a user using the locally running application based on a notification from a file management system of an operating system; if the cached file has been modified, save the cached file from the cached directly to the database as recited in independent claims 46, 59, and 79-81.

These features, together with the other limitations of the independent claims are novel and non-obvious over the prior art of record. The dependent claims 47-58 and

60-69 being definite, enabled by the specification, and further limiting to the independent claim, are also allowable.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 70-72 and 75-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Pace et al.** ("**Pace**") (U.S. Patent Application 20030101223A1) in view of **Kishi** (U.S. Patent 6,105,037).

Regarding claim 70, **Pace** teaches a method for synchronizing a file in a cache comprising:

'receive a database asset directly from a database' as a SQL query could be executed to obtained the results and insert those results into the final ASSET-DESCRIPTOR table (¶522);

'store the database asset as a cached file in the cache' as a cached may be used to store the assets on disk or in memory. Each asset stored has an asset ID (i.e., filename) associated with it (¶ 526 and 523);

open the cached file with a local application associated with a file type for the cached file' as PDF viewer enables the system to open and view the PDF files and MP3 Player enables the system to open and play MP3 files (¶ 339).

'determine if the cached file has been modified' as versioning is the process of determining the current version of an asset against a cached asset (¶ 790); and

'if the cached file has been modified, communicating the cached file directly to the database' as the Synchronize Asset Adaptor (SAA) retrieves the synchronization information from the client environment for the respective asset. In the case of an ED or EB, the retrieval information constitutes the insertion, deletion, and updating of database records which constitute the changes that the data has undergone at client since being deployed into the client target environment for this respective asset (¶s 700, 703, 709, 827 and 958).

Pace does not explicitly teach **'a notification from a file management system of an operating system'.**

Kishi, however, teaches **'a notification from a file management system of an operating system'** as File System Manager (FSM) function calls an automatic storage manager administrator supplied function to notify the automatic storage the automatic storage manager administrator of the file closing. This function queues an update message to the automatic storage manager administrator cached file management thread so that the file is added to the cached list as a resident file. For each of the managed file systems, the automatic storage manager administrator reconcile thread sends a "START" message to the automatic storage manager administrator reconcile disk management thread for the file system being reconciled (col. 6, lines 12-19; col. 5, lines 35-44, col. 5, lines 65 – col. 6, line 7; col. 6, lines 12-19).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of the cited references because **Kishi's** teaching would have allowed **Pace's** to reconcile a server and client database of a file system via an automatic storage manager sending a START message based on a timer function when the distributed storage manager server can reconcile (col. 5, lines 18-35).

Regarding claim 71, **Pace** further teaches **'associating the cached file with a connection'** as a connection is established between the target node and the asset's original source node. The session bean would be required for managing the data

associated with the user's connection, and possibly accessing data in the relational database (¶s 78, 481 and 482).

Regarding claim 72, **Pace** further teaches **'establishing the connection with the database'** as the session bean would be required for managing the data associated with the user's connection, and possibly accessing data in the relational database (¶s 74 and 481).

Regarding claim 75, **Pace** further teaches **'associating the cached file with a location in a memory'** as the Asset Descriptor Manifest (ADM) may be a data structure that associates asset IDS and offsets. The offset 1556H offsets into file containing cached asset, e.g. the boundaries of the asset fragment (¶s 536 and 538).

Regarding claim 76, **Pace** further teaches **notifying a first user that an additional user has accessed the database asset'** as the client DBMS would call the CDA when the database record has changed (¶ 700).

Regarding claim 77, **Pace** further teaches **'opening the cached file with an application associated with a file type associated with the cached file'** as PDF viewer enables the system to open and view the PDF files and MP3 Player enables the system to open and play MP3 files (¶ 339).

Regarding claim 78, **Pace** further teaches **'purging the cached file from the cache if the database asset is deleted from the database'** as the client DBMS would call the CDA when the database record has changed and the Caching Agent Method (CAM) deletes old assets from the asset cache (¶s 700 and 827).

6. Claims 73 and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Pace et al.** ("**Pace**") (U.S. Patent Application 20030101223A1) in view of in view of **Kishi** (U.S. Patent 6,105,037) as applied to claims 70-72 and 75-78 and further in view of **Goldberg et al.** ("**Goldberg**") (U.S. Patent 6,434,543 B1).

Regarding claim 73, **Pace** and **Kishi** do not explicitly teach determining if the connection with the database has become disconnected; and if the connection with the database has become disconnected, reestablishing the connection to the database.

Goldberg, however, teaches the steps of:

e1). 'determine if the connection has been disconnected; and

e2). if the connection has been disconnected, to reestablish the connection' as when a query is complete and the connection between the client and server is released. Subsequently, when the client requests a connection to the database, the system re-establish the connection by examine connection cache to determine whether a database connection with the corresponding client, database and password information is stored therein (col. 2, lines 37-39; col. 5, lines 58-59; col. 5, line 66 – col. 6, line 5).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of the cited references because **Goldberg's** teaching would have allowed **Pace-Kishi's** to allow regain access to the database by examining the connection cache to determine whether a database connection for the corresponding client exists in order to efficiently utilize the database and reduce overhead associated with establishing a database connection as suggested by **Goldberg** at col. 1, lines 7-9.

Regarding claim 74, **Pace** and **Kishi** do not explicitly teach wherein the software program is further executable to: save a user login; and reestablish the connection using the user login.

Goldberg, however, teaches '**save a user login; and reestablish the connection using the user login**' as connection information which can include the database name, user name and login password are stored in the connection manager for each open connection. In response to a server makes a request to again connect to database, connection manager examines connection cache to determine whether a database connection with the corresponding client, database and password information is stored therein. If it is, the associated connection handle is returned. If no existing connection is stored in the cache, then new connection is opened and stored in the cache (col. 2, lines 40-43; col. 5, line 66- col. 6, line 7).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of the cited references because

Goldberg's teaching involves a connection manager that maintains an internal cache of database connections that have been opened (col. 5, lines 50-52) have allowed **Pace-Kishi's** to eliminate the overhead necessary to establish the connection by reuse the same connection over and over as the server always logs on under the same database name, user name and password as suggested by **Goldberg** at col. 6, lines 14-19.

Response to Argument

7. Applicants' arguments filed 09 June 2005 have been fully considered but they are not persuasive.

Applicants argue that it is unclear how the references can be combined in the manner suggested by the Examiner because Pace deals with the distribution and management of content to target computers, while Kishi deals with reconciliation of a DASD and physical tape media in an enterprise backup system.

In response to the preceding arguments, Examiner respectfully submits that Pace teaches synchronization assets in a multi-tiered network using the SA. The SA also can coordinate the transfer of assets information between the caching agent and computational agent. The SA performs this functionality for deployment and synchronization [0803]. Kishi teaches automatically reconciling the client and server databases and actively management the files stored in the cache (abstract). Both prior arts teach cache, client-server, database, and synchronization. The applied prior art teaches related subject matters as mentioned above. Therefore, one skilled in the art

would have been motivated to combine Pace and Kishi as they would arrive at the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie Wong whose telephone number is (571) 272-4120. The examiner can normally be reached on Monday to Friday 9:30am - 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Leslie Wong
Primary Patent Examiner
Art Unit 2167

LW
August 22, 2005